PROGRAM
of the International Workshop

APPLIED METHODS OF STATISTICAL ANALYSIS.
NONPARAMETRIC APPROACH

Novosibirsk & Belokurikha

14-19 September, 2015

9.00 – 9.30	**Registration**

9.30 – 10.00	**Opening Ceremony**

10.00 – 11.00　Keynote Lecture: Prof. B. Lemeshko
　Computer technologies in solving the problems of applied mathematical statistics

11.00 – 11.30	**Coffee Break**

11.30 – 13.00　Section: Monte Carlo method in problems of applied statistics

　　　　　　　Chair: Prof. B. Lemeshko

O. Makhotkin
　　　Investigation of L-distance between probability densities and their estimates

V. Antyufeev
　　　Theorem of learning for a competition algorithm

I. Veretelnikova, B. Lemeshko
　　　Tests for an absence of trend

V. Gubarev, O. Alsova, N. Abalov, G. Melnikov, R. Terekhov, S. Pushkareva
　　　Research of stationary random processes with a non-linear regression. Part 1.
　　　Features and nonlinear transformations of processes with linear regression

13.00 – 14.00	**Lunch** (NSTU, Building VI)

14.00 – 15.00　Keynote Lecture: Prof. G. Mikhailov
　　　　Среднеквадратические и поточечные оценки плотности распределения в
методе Монте-Карло

15.00 – 16.30　Section: Statistical simulation of natural processes

　　　　　　　Chair: Prof. V. Ogorodnikov

N. Kargapolova, V. Ogorodnikov
　　　An algorithm for numerical simulation of isotropic random fields and its
　　　meteorological application

O. Sereseva, V. Ogorodnikov
　　　Piecewise linear processes on the Poisson flow

O. Soboleva
　　　Subgrid modeling of propagation of acoustic waves in multiscale random media

S. Gusev, V. Nikolaev
　　　Numerical statistical modeling of the thermal state of aircraft honeycomb coatings

16.30 – 17.00	**Coffee Break**

Section: Nonparametric and robust statistical methods in cybernetics

Chair: Prof. G. Koshkin

E. Volodarsky, Z. Warsza, L. Kosheva, A. Idzkowski
Evaluation of the precision of interlaboratory measurements by robust algorithm S

Yu. Dmitriev, P. Tarassenko
On adaptive estimation using a prior Guess

V. Timofeev, A. Sanina
Estimating of the Russian banks bankruptcy probability using improved classification algorithms

T. Gultyaeva, A. Popov, V. Kokoreva, V. Uvarov
Classification of observation sequences described by hidden Markov models

15 September 2015

9.00	**Transfer to Belokurikha** (Departure from NSTU, Building I)
16.00	**Accommodation**
19.00	**Dinner** (Belovodie)

16 September 2015   Belovodie
(Conference Hall)

9.00 – 10.00   Keynote Lecture: Prof. N. Balakrishnan

Gamma degradation model and associated inference

10.00 – 11.00   Section: Lifetime data analysis

Chair: Dr. E. Chimitova

H. Läuter, H. Liero
Statistical inference in Cox models

H. Liero, K. Wichitsa-nguan
A score-test for the time-dependent coefficient in the Cox model

S. Malov, S. O'Brien
On survival categorical methods based on an extended actuarial estimator

11.00 – 11.30   **Coffee Break**

11.30 – 13.00   Section: Lifetime data analysis

  Chair: Dr. E. Chimitova

E. Chimitova, E. Chetvertakova
  A comparison of the "fixed-effect" and "random-effect" gamma degradation models

H. Nagatsuka, N. Balakrishnan
  On inference for the generalized Pareto distribution

T. Kamakura, T. Sakumura
  Property of LM tests for reliability distributions in case of small samples

V. Demin, E. Chimitova
  An adaptive method for selecting an optimal bandwidth parameter in nonparametric estimate of the conditional reliability function

13.00 – 14.00   **Lunch**

14.00 – 16.00   Section: Lifetime data analysis

  Chair: Dr. E. Chimitova

A. Abdushukurov
  Estimation of survival function in partially informative random censoring model in the presence of a covariate

R. Muradov
  Asymptotic results for copula estimator of survival function under random right censored observations at fixed covariate values

M. Krnjajić, A. Kottas
  Bayesian semiparametric mixtures in quantile regression

E. Gouno, L. Courtrai
  Lifetime data analysis via fiabilitis

P. Philonenko, S. Postovalov
  The limit distribution of the maximum value test

16.00 – 16.30   **Coffee Break**

16.30 – 18.00   Section: Statistical simulation of natural processes

  Chair: Prof. V. Ogorodnikov

K. Litvenko, S. Prigarin, E. Sagoyakova
  The accuracy of spectral models for the Sea surface simulation

A. Korneeva, E. Mihov
  Some remarks on H-models identification of noninertial processes

E. Chzhan, N. Sergeeva
  About the method of observations supplements the source data

Z. Warsza, S. Kubisa
  Comparisons by MC method the mean and mid-range as estimators of measurand for samples from Uniform and Flatten-Gaussian populations

19.00 – 23.00   **Gala Dinner**

10.00 – 11.00   <u>Keynote Lecture:</u> Prof. F. Tarasenko

Rank as proxy for the observation in statistical procedures

11.00 – 11.30   **Coffee Break**

11.30 – 13.00   Section: Nonparametric and robust statistical methods in cybernetics //

XV Symposium (In Russian)

Chair: Prof. A. Medvedev

А. Медведев
Моделирование дискретно-непрерывных процессов

I. Fuks, G. Koshkin
Smooth estimation of multivariate reliability function

A. Bannikova, A. Korneeva, M. Kornet
About the dual non-parametric control of dynamic systems

D. Politis, V. Vasiliev, P. Tarasenko
Adaptive estimation of density function derivative

13.00 – 14.00   **Lunch**

14.00 – 15.00   Section: Nonparametric and robust statistical methods in cybernetics //

XV Symposium (In Russian)

Chair: Prof. A. Medvedev

Е. Агафонов
Имитационная эвристическая модель магистрального нефтепровода

Е. Михов
О настройке параметра размытости при непараметрическом оценивании функции регрессии

С. Вожов, Е. Чимитова
Непараметрическая оценка функции распределения по интервальным данным

15.00 – 18.30   **Excursion to mountain Tserkovka**
(Departure from Belovodie)

10.00 – 11.00   Section: Information and statistical analysis of complex systems

Chair: Dr. A. Klavdiev

V. Shpenst, D. Pervukhin, D. Garanin
   Bases of stochastic similarity of difficult systems

A. Klavdiev, A. Volovik, S. Efimenko
   Nonparametric identification of stochastic models of difficult systems

O. Afanasyeva, I. Kivaev, I. Klavdiev
   Potential distribution of probabilities and stochastic similarity in comparison problems

11.00 – 11.30   **Coffee Break**

11.30 – 13.00   Section: Information and statistical analysis of complex systems

Chair: Dr. A. Klavdiev

A. Volovik, A. Klavdiev, S. Efimenko
   Information and statistical justification of the alternative acceptance control products

A. Klavdiev, A. Sulima, S. Efimenko
   Extreme statistics

B. Dobronets, O. Popova
   Numerical probabilistic approach for data nonparametric analysis

13.00 – 14.00   **Lunch**

14.00 – 16.00   Section: Econometric methods and modeling

Chair: Dr. V. Timofeev

M. Arkhipova, K. Arkhipov
   Specific of dairy entrepreneurship in period of globalization

E. Khailenko, O. Avrunev
   Predicting changes in the number of students for making management decisions

A. Timofeeva, A. Borisova
   Estimating polychoric correlations for mixed data of graduate employment survey

T. Emelyanova, V. Konev
   On sequential estimation of a periodic signal distorted by an autoregressive noise

16.00 – 16.30   **Coffee Break**

16.30 – 17.30   Section: Econometric methods and modeling

Chair: Dr. V. Timofeev

S. Eremina
The influence of educational environment on the student's knowledge level based on the PISA survey data

A. Loseva
Creating composite measures for assessment conditions of fiscal potential mobilization

17.30 – 18.00 **Closing Ceremony**

19 September 2015

9.00 **Transfer to Novosibirsk**
(Departure from Belovodie)